

# MANHOLES

## INSTALLATION OF PRECAST CONCRETE MANHOLES

The following instructions are to be utilized to install all Precast Concrete Manholes unless otherwise noted. This Section Includes:

- Standard Manholes Sizes
- Installation Standards
- Duct Terminations
- Clearances
- Depth (Cover)

### Sizes

There are various sizes and styles of BGE approved Precast Concrete Manholes. Depending on the specific situations and applications, manhole types are usually determined by the voltage of the circuits and the proposed number of ducts entering the manhole. Generally your BGE representative will determine the size and type of manhole for your project.

### Installation Standards

1. Determine as accurately as possible surface and subsurface obstructions to assure proper installation of manholes and the proper installation, alignment and interception of ducts.
2. Stabilize the bottom of the manhole excavation with 8 " of pea gravel.
3. The excavation bottom shall be dry and level to within 1 " side-to-side and end to end.
4. Position manholes in the excavation so that the rooftop is 1' minimum – 5' maximum below final grade. If the manhole has to be installed at a greater than 5' depth, contact the DPL representative for authorization.
5. Backfill evenly around the manhole with clean, dry earth or sand. Mechanically tamp in 12 " layers.
6. Install 36 frame and cover. Check with local authority for proper cover if the manhole is installed in municipality right of way.
7. Place black mastic sealant strips (provided from manufacturer) in the groove on the top of the wall prior to installing top to provide a water tight installation.

### Location

1. The preferred manhole location is installed adjacent to, but not in, truck-accessible, H-20 rated roadways to provide access for personnel and construction equipment for the installation and maintenance of manholes, equipment and cables.
2. Second choice, locate manhole to one side of the road (in one traffic lane) and avoid gutter area with manhole cover.
3. Third choice, consider only when necessary. Locate manhole to one side of road (one traffic lane) and avoid gutter area with manhole cover.
4. Locating a manhole in a street intersection is the least desirable alternative because of accessibility and the impact to traffic and underground obstructions.
5. Avoid wet locations, swale areas and low points.

### Clearances

1. A minimum of 15' overhead clearance is required for the installation and maintenance of existing and proposed manholes.
2. Maintain 2' minimum horizontal clearance from edge of curb or paving to manhole.
3. Maintain 2' minimum clearance from property line.
4. Minimum horizontal clearance from adjacent buildings is determined by maintaining a one foot horizontal separation for every foot the manhole floor extends below the basement floor elevation.
5. Minimum horizontal clearance from underground obstructions such as retaining walls, pole, foundations is determined by maintaining a one foot horizontal separation for every foot the manhole floor extends below the obstruction.
6. When clearances must be reduced, contact the responsible agency or local authority to negotiate an agreement.

## INSTALLATION STANDARDS (CONT'D)

### Special Lengths

1. Standard distance between manholes must not exceed 850' for 12kV cables and 700' for 34kV cables.
2. If conduit design/construction requires spacing to be longer than maximum lengths, contact DPL's Electric Distribution Engineering and Standards Unit.

